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PROVINCIAL GOVERNMENT LIQUIDITY OUTLOOK

OFFICE OF THE PARLIAMENTARY BUDGET OFFICER
BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

The purpose of this report is to address questions from several parliamentarians about potential uptake of the new Bank of Canada provincial liquidity-support programs.

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Executive Summary

Economic uncertainties generated by the public health response to COVID-19 and record low oil prices have disrupted financial markets.

Beginning in March, there was an abrupt global flight to cash, which began to constrain credit access for provincial governments, among other Canadian issuers of debt. Soon after, the Bank of Canada intervened to directly support liquidity in provincial governments' funding markets by buying short-term and long-term debt, and by purchasing provincial debt on a temporary basis using term repurchase operations.

The purpose of this report is to address questions from several parliamentarians about potential uptake of the new Bank of Canada (the Bank) provincial liquidity-support programs.

The Bank's liquidity support programs are designed to address temporary financing challenges. Overall, PBO estimates that provincial governments will have liquidity requirements of at least $195 billion by the end of 2021. This accounts for $67 billion in COVID-related provincial spending, $119 billion of provincial debt that must be refinanced in 2020 or 2021, and $9 billion in planned deficits (pre-COVID-19).

On 31 May, the Bank held $59 billion in provincial debt.

Relative to their provincial economies, the governments of Manitoba and Newfoundland and Labrador have the largest estimated liquidity needs until 2021.

Long-term fiscal sustainability for provincial governments is determined by structural factors and would not be meaningfully affected by these liquidity-support programs.

1. COVID-19 Context

The Canadian economy is confronting two massive simultaneous shocks: a public health shock to contain the spread of COVID-19 and an oil price shock.

Economic uncertainties generated by these shocks have disrupted financial markets, leading to a widespread flight to cash and difficulty selling assets. Below, the Bank of Canada (the Bank) summarizes how the sharp economic downturn has affected the financial system, generating demand for liquid assets:

The fall in incomes and asset values and the rise in uncertainty about their future paths make lending to households and businesses riskier for banks and non-bank financial intermediaries. These conditions also lead investors to try to sell assets in financial markets. But the abrupt and widespread flight to cash makes selling assets difficult. If left unchecked, this decline in market liquidity could limit access to credit for households and businesses.

- Bank of Canada Financial System Review 2020

What is liquidity?

Funding liquidity is about having access to cash when you need it and market liquidity refers to the ability to sell assets quickly without offering a large price discount. An organization with sufficient liquidity has the capacity to meet obligations when they come due, without incurring unacceptable losses.

Liquidity strains were widespread across financial markets in March – affecting Government of Canada treasury bills and bonds, corporate bonds and provincial government bonds alike.[1] When provincial debt market liquidity deteriorated, investors became reluctant to hold provincial debt, which made it more challenging for issuers of that debt (provincial governments) to access funding.

Beginning in March, the Bank intervened to directly support liquidity in provincial governments' funding markets using two direct mechanisms:

1. Provincial Money Market Purchase Program: purchases of short-term debt, with terms to maturity of 12 months or less)

2. Provincial Bond Purchase Program: purchases of longer-term bonds, maturing on or before April 15, 2031

The Bank also supported provincial governments' bond markets indirectly by purchasing provincial debt on a temporary basis using term repurchase operations.[2]

The federal government, as sole shareholder of the Bank, now indirectly has greater financial exposure to provincial governments' debt. The purpose of this report is to address questions from several parliamentarians about potential uptake of the new Bank provincial liquidity-support programs.

2. Bank liquidity support to provinces

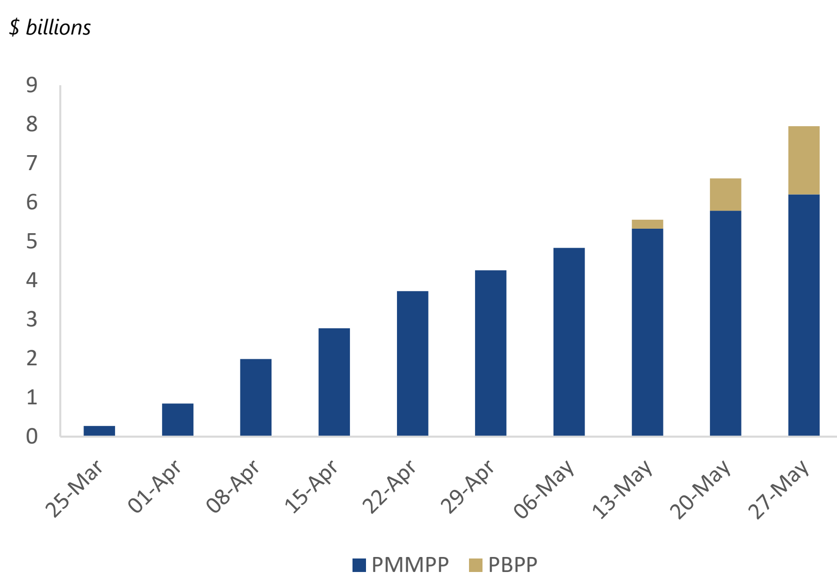
The Bank has supported the liquidity and efficiency of provincial government funding markets using a combination of activities during the current period of economic stress.[3]

First, the Bank is purchasing provincial debt on a semi-permanent basis through the Provincial Money Market Purchase Program (short-term debt, with terms to maturity of 12 months or less) and the Provincial Bond Purchase Program (longer-term bonds, maturing on or before April 15, 2031).[4] Debt purchases through these programs will remain as Bank assets until each debt contract's term expires or the Bank sells debt contracts to private counterparties.

As of 27 May, 2020, the Bank held $6.2 billion of provincial debt purchased through the Provincial Money Market Purchase Program (PMMPP) and $1.7 billion purchased through the Provincial Bond Purchase Program (PBPP).[5] These programs have been steadily increasing in size since they were introduced in March and May 2020, respectively (Figure 2-1).

Figure 2-1

Bank of Canada's cumulative support to provincial bond markets has increased since March



Sources: The Bank of Canada and Parliamentary Budget Officer.

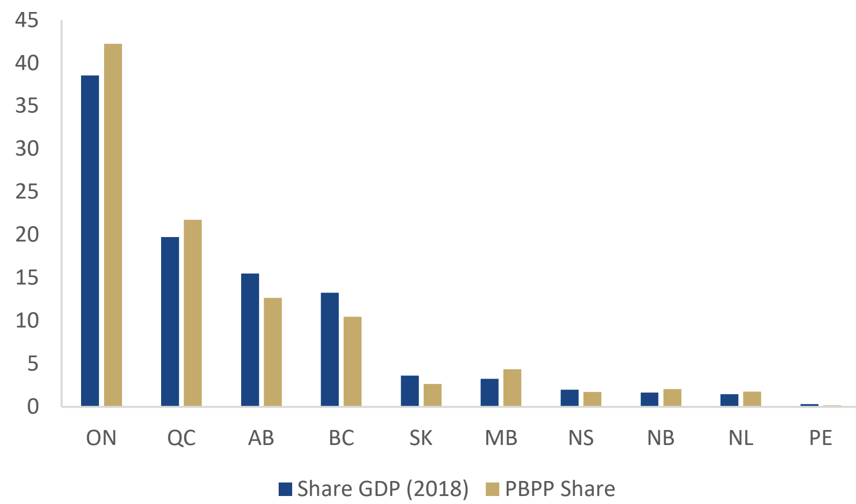
Note: As of 27 May, 2020

The aim of the PBPP is to provide equal support to each province based on their share of eligible bonds outstanding and their share of Canadian GDP.[6] As of 2 June, 2020, Ontario's share of the PBPP reference portfolio stood at 42 per cent (Figure 2-2). The share of Canadian GDP for each province is similar to the share of the PBPP reference portfolio (Figure 2-2).

Figure 2-2

Provincial debt held by the Bank is propotional to provincial GDP

Per cent



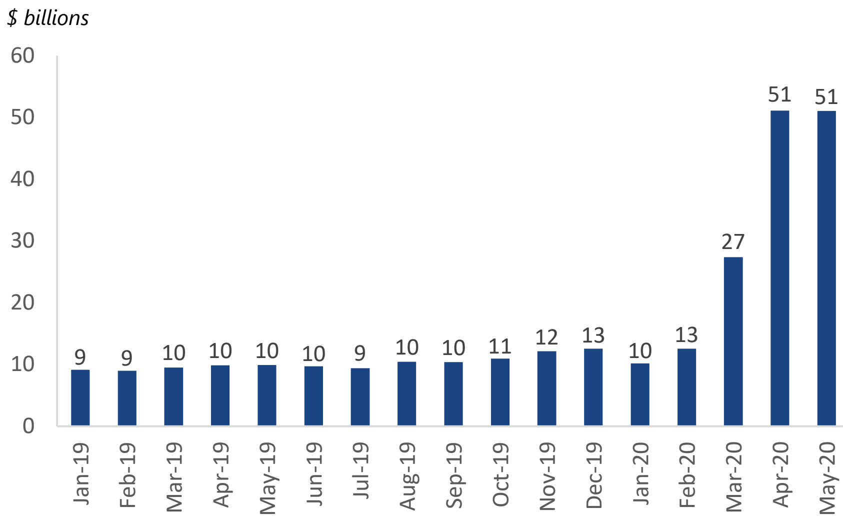
Sources:	The Bank of Canada, Statistics Canada, and Parliamentary Budget Officer.
Note:	For the PBPP portfolio, Prince Edward Island has 0.19 per cent, Nunavut has 0.01 per cent, Northwest Territories has 0.02 per cent and Yukon does not have any bonds in the 0-10 year sector, as of 2 June, 2020.

Secondly, the Bank is also purchasing provincial debt on a temporary basis using term repurchase operations.[7] Repurchase agreements allow the Bank to exchange cash for provincial government debt securities. These swaps expire after a preset term, usually 1-month or 3-months, and are targeted to financial institutions as the main counterparties. While the primary intent of the Bank's repurchase operations is to enhance short-term cash liquidity for private financial institutions, the agreements temporarily increase the Bank's effective lending support to provincial governments for the duration of each swap contract, now up to 24-months.

As of 31 May, 2020, the Bank held $51.0 billion of provincial debt purchased using term repurchase operations, representing roughly one-quarter of the total securities backing term repurchase operations outstanding.[8,9,10] This is roughly a fourfold increase in the value of provincial government debt repurchase contracts held by the bank in the pre-crisis period (Figure 2-3).[11]

Figure 2-3

The Bank is providing liquidity support through provincial government debt repurchase agreements

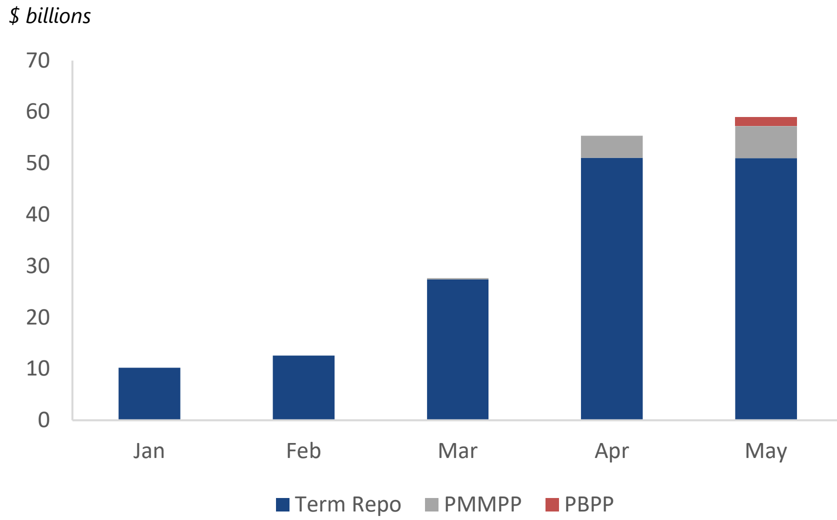


Sources: The Bank of Canada and Parliamentary Budget Officer.

Note: As of 31 May, 2020

Overall, the Bank holds $59.1 billion in provincial debt of all types as of 31 May, 2020. Repurchase agreements ($51.1 billion) comprise of the largest share of total provincial debt purchased by the Bank. The Provincial Money Market Purchase Program ($6.2 billion) and the Provincial Bond Purchase Program ($1.7 billion) comprise smaller shares (Figure 2-4).

Figure 2-4 Bank of Canada holdings of provincial government debt



Sources: The Bank of Canada and Parliamentary Budget Officer.

Note: Not shown: $78.8 million purchased through contingent term repurchase operations as of 31 May.

As of 31 May for Repurchase operations

As of 27 May for PMMPP and PBPP

3. Potential program participation

The Bank programs are designed to remedy liquidity problems for provincial governments. Demand for these programs will depend on systemic and specific factors affecting liquidity for each provincial government.

Systemically, liquidity challenges for Canadian government and corporate securities can transmit into liquidity strains across asset classes, including provincial debt. During market turmoil, tougher credit conditions hamper financial intermediaries' ability to facilitate trading. Consequently, key actors in the financial system become less willing to hold securities in periods of heightened uncertainty when prices become volatile. These risk factors and transmission paths are discussed in more detail in the Bank's Financial System Review 2020.[12]

Participation in provincial government liquidity programs will also depend on specific characteristics for each provincial government. To measure liquidity risk, and thus likelihood a government may make use of the Bank's liquidity programs, we must examine the two sides of each governments' balance sheet:

1. Assets: accessible cash, deposits and foreign exchange reserves
2. Liabilities: payments becoming due in the next 1- to 2-years.

Asset liquidity management

Government treasuries engage in asset management to ensure they always have enough cash available to meet operating requirements.

Cash generally refers to deposits with the Bank of Canada, chartered banks and other financial institutions. Governments may also hold additional financial assets (such as foreign exchange reserves) to further safeguard the ability to meet payment obligations in situations where normal access to funding markets may be disrupted or delayed.

Cash deposits have the benefit of high liquidity. But there are trade-offs for liquidity. Cash, unlike most other financial assets, does not generate a return, so it is comparatively expensive to hold. A government can issue debt to increase its short-term liquidity, but it must pay interest on borrowings, while receiving no financial return on cash assets. Therefore, cash management generally weighs interest costs with potential benefits of greater liquidity.

Since few organizations hold enough cash to fund more than a few weeks or months of operations, access to short-term credit markets is a key part of the asset-side of liquidity management.

Liability liquidity management

Governments borrow to (partly) fund the goods and services they provide.[13] The need for cash generally arises to satisfy two types of obligations:

1. New spending: paying employees' salaries, sending cash transfers to individuals or other levels of government, and other operating costs.

2. Refinancing needs: Provincial governments generally borrow on a fixed term, ranging from 30-days to 30-years (or more). At expiry, each debt contract must be either repaid (using budgetary surpluses) or refinanced.

The sum of these two categories explains the future cash needs of governments in the near-term.

The COVID-19 crisis has increased funding requirements for new spending, as all governments are launching programs to address the health crisis. PBO has aggregated each province's recent spending commitments (Table 3-1). COVID spending commitments up to 31 May 2020 range from 0.2 per cent of provincial GDP in New Brunswick to 6.5 per cent of GDP in Quebec. It is likely that each government will incur additional spending throughout 2020-21.[14]

Table 3-1 COVID-response spending: provincial governments

	$ billions	% GDP (2018)
BC	5.4	1.8
AB	9.3	2.7
SK	1.8	2.3
MB	2.5	3.4
ON	17.5	2.0
QC	28.7	6.5
NB	0.1	0.2
NS	0.9	2.0
PE	0.1	1.4
NL	0.4	1.1
Total	66.6	3.0

Sources: Parliamentary Budget Officer, Statistics Canada, and Provincial Government news releases.

Note: As of 31 May, 2020.

Refinancing needs arise less suddenly than spending increases due to COVID-19. Generally, provincial treasuries follow debt management strategies that result in a relatively stable proportion of the debt portfolio to mature in any given year.

These requirements vary significantly by province, even when adjusted for the size of the provincial economy. Refinancing needs until the end of 2021 range from 1.3 per cent of GDP in Nova Scotia to 12 per cent of GDP in Manitoba (Table 3-2).[15] On average, roughly 15 per cent of the total stock of provincial market debt will require refinancing.

Table 3-2 Future refinancing requirements: provincial governments

	Due in 2020 (% of 2018 GDP)	Due in 2021 (% of 2018 GDP)	Due in 2020 (% of debt portfolio)	Due in 2021 (% of debt portfolio)
BC	1.2	1.3	5.9	6.4
AB	1.4	1.2	5.8	5.2
SK	3.5	0.1	12.8	0.4
MB	8.0	4.0	11.1	5.5
ON	4.6	2.1	11.0	5.0
QC	3.3	3.1	6.7	6.3
NB	4.5	2.4	9.9	5.4
NS	0.0	1.3	0.0	4.7
PE	1.6	0.2	5.5	0.6
NL	4.9	3.0	10.5	6.3
Total	3.3	2.1	9.1	5.6

Sources: Parliamentary Budget Officer, Statistics Canada, Provincial Public Accounts, Provincial Budgets, Provincial Government news releases and Provincial Ministries of Finance.

Note: The most recent data as of 31 May, 2020.

Added liquidity pressures arise from the need of refinancing provincial government deficits. As per their most recent budget pre-COVID, Alberta, Manitoba, Ontario and Newfoundland and Labrador provincial governments were forecasting cumulative deficits in 2020-21 and 2021-22 ranging from -3.3 per cent of GDP in Newfoundland and Labrador to -0.5 per cent of GDP in Manitoba (Table 3-3).

Table 3-3 Pre-COVID planned surplus (deficits): provincial governments

	2020-21 ($ millions)	2021-22 ($ millions)	% GDP (2018)	% GDP (2018)
BC	179	374	0.1	0.1
AB	-2705	706	-0.8	0.2
SK	49	72	0.1	0.1
MB	-220	-142	-0.3	-0.2
ON	-6700	-5400	-0.8	-0.6
QC	2729	3030	0.6	0.7
NB	92	74	0.2	0.2
NS	55	63	0.1	0.1
PE	7	13	0.1	0.2
NL	-796	-300	-2.4	-0.9
Total	-7309	-1510	-0.3	-0.1

Sources: Provincial Budgets, Statistics Canada, Parliamentary Budget Office.

Summary indicators of liquidity requirements

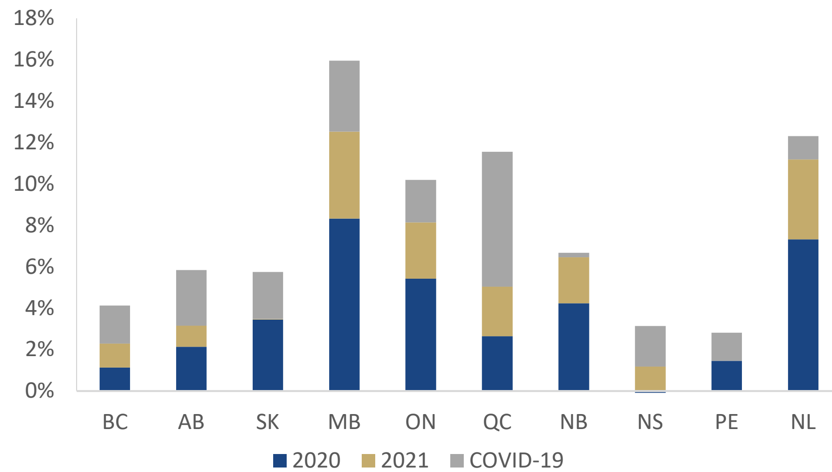
Overall, PBO estimates that provincial governments will have liquidity requirements of at least $195 billion by the end of 2021. This accounts for $67 billion in COVID-related provincial spending and $119 billion of provincial debt that must be refinanced in 2020 or 2021. It also accounts for roughly $9 billion in budgetary deficits that were planned by provincial governments prior to the onset of COVID-19.[16]

Provincial governments in Manitoba and Newfoundland and Labrador have the greatest liquidity needs until 2021, when measured relative to the size of their provincial economies (Figure 3-1).

It is important to note that this is an indicator for the expected demand for cash over the next 18 months, not a singular measure of liquidity risk. Other factors contribute to liquidity risk, including broader financial market conditions, the fiscal sustainability of a government, and the depth of the financial market for a particular provinces' debt issuance.[17]

Figure 3-1 Projected provincial government liquidity requirements

% of GDP (2018)



Sources: Parliamentary Budget Officer, Statistics Canada, Provincial Public Accounts, Provincial Budgets, Provincial Government news releases and Provincial Ministries of Finance.

Note: This graphic excludes projected budgetary balances outside of COVID-19 measures.

4. Solvency risk

Liquidity risk measures the ability to meet near-term obligations when they come due, without incurring unacceptable losses. Its counterpart, solvency risk, measures the ability to meet longer-term obligations.

Credit ratings are a tool to categorize solvency risk for financial market participants. Canada's provincial governments broadly have solid ratings – all are classified as investment-grade (Table 4-1).

Table 4-1 Credit ratings: provincial governments

Province	Moody's	S&P	DBRS	Fitch
BC	Aaa	AAA	AA high	AAA
AB	Aa2	A+	AA low	AA
SK	Aaa	AA	AA low	AA
MB	Aa2	A+	A high	-
ON	Aa3	A+	AA low	AA-
QC	Aa2	AA-	AA low	AA-
NB	Aa2	A+	A high	-
NS	Aa2	AA-	A high	-
PE	Aa2	A	A	-
NL	A1	A	A low	-

Sources: Moody's, Standard & Poor's, DBRS, Fitch Group and provincial governments.

That said, post-COVID-19, several ratings agencies have downgraded or signaled concern regarding the credit quality of several provincial governments.[18,19,20] While liquidity risks for a government can arise due to temporary factors, solvency risks are longer-term and sometimes reflect structural imbalances. A fiscally unsustainable government (characterized by permanently increasing debt-to-GDP[21]) could become insolvent over a long-term horizon if no policy changes are implemented.

Recent Bank of Canada programs are set up to remedy temporary liquidity challenges but are not expected to address underlying solvency risks for provincial governments. Changes in local fiscal policy or increases to federal transfers remain the main policy tools to address provincial fiscal unsustainability.

Notes

1. Bank of Canada Financial System Review 2020. Available at: https://www.bankofcanada.ca/2020/05/financial-system-review-2020/

2. Bank of Canada staff define a repurchase agreement (repo) as: *A repo is essentially a collateralized loan. One party to a repo lends cash and earns interest on the cash lent. The other party borrows the cash and pays the interest. The borrower secures the loan by posting a security as collateral. […] Absolute title to the collateral passes from the cash borrower to the cash lender. The lender therefore owns the collateral during the term of the repo and may use the security freely.* Available at: https://www.bankofcanada.ca/wp-content/uploads/2016/03/sdp2016-8.pdf

   In the case of recent repurchase agreements of provincial government debt, the Bank of Canada lends cash and earns interest on the cash lent. The other party secures the loan by posting provincial government securities as collateral. Between purchase and resale, the Bank owns the provincial debt securities held as collateral.

3. Bank of Canada. https://www.bankofcanada.ca/2020/03/bank-canada-announces-new-program-support-provincial-funding-markets/

4. The Bank is purchasing provincial debt in the primary market, that is, directly from provinces and territories treasuries at issuance. The Bank is also purchasing provincial debt in the secondary market, that is, provincial debt already held by a wide array of Canadian and global financial institutions.

   This program is intended to run for 12 months from May 7, 2020 to May 6, 2021.

   https://www.bankofcanada.ca/markets/market-operations-liquidity-provision/market-operations-programs-and-facilities/provincial-bond-purchase-program/

5. The Bank of Canada. https://www.bankofcanada.ca/rates/banking-and-financial-statistics/bank-of-canada-assets-and-liabilities-weekly-formerly-b2/?_ga=2.230457628.1008857174.1588687081-1772352552.1581529599

6. The Bank of Canada. https://www.bankofcanada.ca/markets/market-operations-liquidity-provision/market-operations-programs-and-facilities/provincial-bond-purchase-program/

7. The Bank uses three standard term repurchase programs. Eligibility for each depends on two factors: organization type and the quality of collateral.

   The first program, term repurchases, are restricted to the smallest set of counterparties and have the strictest criteria for collateral. Term repurchases are the most cost-effective program for counterparties. The Standing Liquidity Facility is next most restrictive. The Standing Term Liquidity Facility is accessible to the broadest range of counterparties and accepts the widest array of collateral.

https://www.bankofcanada.ca/markets/market-operations-liquidity-provision/framework-market-operations-liquidity-provision/?#term-repo

Finally, the Bank has also opened its emergency liquidity program, the Contingent Term Repo Facility (CTRF). This program is the Bank of Canada's standing repo facility to counter any severe market-wide liquidity stresses and support the stability of the Canadian financial system. The CTRF offers Canadian dollar funding for 1-month to eligible counterparties on a standing, bilateral basis against securities issued or guaranteed by the Government of Canada or a provincial government. This facility allows the Bank to offer liquidity beyond primary dealers and their affiliates, however, is the costliest out of the three programs.

https://www.bankofcanada.ca/2020/04/bank-of-canada-announces-activation-of-the-contingent-term-repo-facility/

8. The Bank of Canada. https://www.bankofcanada.ca/wp-content/uploads/2020/05/boc-balance-sheet-sup0420.pdf

9. As of 27 May, 2020, the Bank held $204.3 billion of total securities under resale agreements.

10. A small portion ($78.8 million) was purchased using contingent term repurchase operations.

11. The Bank of Canada. https://www.bankofcanada.ca/about/governance-documents/bank-of-canada-statement-financial-position/

12. Available at: https://www.bankofcanada.ca/2020/05/financial-system-review-2020/

13. Tax, transfer and investment revenues are other funding sources.

14. The additional spending obligations due to COVID-19 was sourced from provincial government news releases. Only measures with a distinct cost associated with them were recorded/included, therefore representing a lower bound.

    This response spending includes transfers, loans, and deferrals, therefore, some funds may be reclaimed, however, the liquidity need persists.

    Measures are up to and including 31 May 2020.

15. Short-term market debt (maturing in 2020-2021) was sourced from the most recent data available from each provincial government on outstanding market debt.

16. This figure reflects the sum of all provinces' planned surpluses and deficits forecast in their most recent fiscal plans published prior to March 2020. It covers fiscal years 2020-21 and 2021-22. It does not account for potential revenue loss to provincial governments because of a weaker economic outlook post-COVID.

17. International Monetary Fund. *Financial Sector Assessment: A Handbook*. Available at : https://www.imf.org/external/pubs/ft/fsa/eng/pdf/ch02.pdf

18. As of March 19. https://www.alberta.ca/assets/documents/investor-relations-credit-report-dbrs-morningstar.pdf

19. The Government of British Columbia. https://www2.gov.bc.ca/gov/content/governments/finances/debt/credit-ratings

20. As of September 30, 2019, compared to as of April 19, 2020. https://www2.gnb.ca/content/gnb/en/departments/finance/investor_relations/content/credit_ratings.html

21. See *Fiscal Sustainability Report 2020* for a pre-COVID assessment of subnational governments' fiscal sustainability. Available at: https://www.pbo-dpb.gc.ca/en/blog/news/RP-1920-029-S-fiscal-sustainability-report-2020-rapport-viabilite-financiere-2020.